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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/033,331	11/01/2001	Paul Peterson	15-724	9609

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EXAMINER

CINTINS, IVARS C

ART UNIT PAPER NUMBER

1724

DATE MAILED: 12/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/033,331

Applicant(s)

PETERSON ET AL.

Examiner

Ivars C. Cintins

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 14-31 is/are pending in the application.
- 4a) Of the above claim(s) 20-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 14-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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Initially, it is noted that the status identifier "original" for claims 14 and 16 is improper, since these claims are currently being amended. The proper status identifier for such claims is "currently amended." Applicant is advised that all future responses must include the proper status identifier for all claims in the application.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 19 is again rejected under 35 U.S.C. 102(b) as being clearly anticipated by Griswold (U.S. Patent No. 2,635,755). See col. 1, lines 1-3, 15-18 and 42-48; col. 2, lines 15-20 and 45-47; col. 3, lines 6-12, 14-20, 33-45 and 51-55; col. 4, lines 7-13, 35-43 and 49-61; and col. 5, lines 9-10. Applicant should note that the reference discloses both monitoring water usage (see col. 3, lines 14-20) and determining when the tank requires regeneration (col. 3, lines 34-35), and this is all that is required by step d) of claim 19.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 5, 8, 10, 11 and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Griswold in view of Chili et al. (U.S. Patent No. 5,073,255). Griswold discloses the claimed invention with the exception of the recited multiple tank system. Chili et al. discloses a multi-tank water treatment system wherein water to be treated is passed through

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all of the treatment tanks initially, and further discloses removing individual tanks for regeneration and re-communication in the recited manner. It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ a plurality of treatment tanks in the system of the primary reference, in order to increase its treatment capacity. Also, it would have been obvious to one of ordinary skill in the art at the time the invention was made to remove individual tanks for regeneration in the recited manner, in order to ensure that water treatment is not interrupted.

Claims 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Griswold and Chili et al. as applied above, further in view of Megonnell et al. (U.S. Patent No. 6,214,212). The modified primary reference discloses the claimed invention with the exception of the use of catalytic carbon. Megonnell et al. discloses removing hydrogen sulfide from water (see col. 1, lines 23-26) with catalytic carbon (see col. 3, lines 37-38). It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the catalytic carbon of Megonnell et al. for the activated carbon of the modified primary reference, since this secondary reference catalytic carbon is capable of removing hydrogen sulfide from water in substantially the same manner as the activated carbon of the modified primary reference, to produce substantially the same results (see especially col. 1, lines 26-28 of Megonnell et al.).

Claims 4 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Griswold and Chili et al. as applied above, further in view of Roberts (U.S. Patent No. 2,855,364). The modified primary reference discloses the claimed invention with the exception of the flow direction of regenerant solution. Roberts teaches purifying water with downflow treatment and upflow regeneration (see Figs. 1 and 4). It would have been obvious to one of ordinary skill in

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the art at the time the invention was made to regenerate the carbon bed of the modified primary reference in the manner suggested by Roberts, since this upflow regeneration technique is also capable of removing the adsorbed sulfur contaminants from this carbon bed.

Claims 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Griswold and Chili et al. as applied above, further in view of Higgins et al. (U.S. Patent No. 5,078,889). The modified primary reference discloses the claimed invention with the exception of the specific oxidant material utilized. Higgins et al. teaches (see col. 7, lines 60-61 and 67-68) that both sodium hypochlorite and peroxide solution are capable of removing hydrogen sulfide from an adsorbent bed; and given this teaching by Higgins et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the sodium hypochlorite of this secondary reference for the hydrogen peroxide of the modified primary reference, since this sodium hypochlorite is capable of removing hydrogen sulfide from the activated carbon bed of the modified primary reference in substantially the same manner as the hydrogen peroxide disclosed therein, to produce substantially the same results.

Applicant's arguments filed October 1, 2004 have been noted and carefully considered but are not deemed to be persuasive of patentability. Applicant argues that Griswold does not anticipate claim 19 because this reference neither teaches nor suggests the step of monitoring the water usage from the tank to determine when the tank requires regeneration. It is pointed out however, that claim 19 does not require any structural element to "monitor" water usage; and therefore, merely observing that water enters the treatment tank through an inlet and leaves the treatment tank through an outlet (see col. 3, lines 14-20) is deemed to constitute monitoring water usage. Applicant should further note that claim 19 does not require regeneration to be

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automatically initiated by a water usage monitoring device; and therefore, the determination by the user that substantial saturation of the carbon bed by sulfur compounds has occurred (col. 3, lines 34-35) is all that is required by step d) of claim 19.

Applicant's remaining arguments have been noted and carefully considered, but no longer appear to be relevant in view of the new grounds of rejection.

Applicant's amendment, i.e. reciting that water is passed through all of the treatment tanks instead of merely one, necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to I. Cintins whose telephone number is (571) 272-1155. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Duane Smith, can be reached at (571) 272-1166.

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The centralized facsimile number for the USPTO is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**Ivars C. Cintins**  
**Primary Examiner**  
**Art Unit 1724**

I. Cintins  
December 22, 2004